

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants:	Farmer et al.	Patent Application
Serial No.:	10/669,784	Group Art Unit: 2186
Filed:	September 24, 2003	Examiner: Tsai, Sheng Jen

For: System and Method to Protect Vital Memory Space From  
Non-Malicious Writes In A Multi Domain System

REPLY BRIEF

In response to the Examiner's Answer mailed on December 2, 2009, Appellants respectfully submit the following remarks.

## REMARKS

Appellants are submitting the following remarks in response to the Examiner's Answer. In these remarks, Appellants are addressing certain arguments presented in the Examiner's Answer. While only certain arguments are addressed in this Reply Brief, this should not be construed that Appellants agree with the other arguments presented in the Examiner's Answer.

"As reiterated by the Supreme Court in KSR, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries" including "[a]scertaining the differences between the claimed invention and the prior art" (MPEP 2141(II)). "In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious" (emphasis in original; MPEP 2141.02(I)). Appellant notes that "[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art" (emphasis added; MPEP 2141(III)).

Appellants respectfully submit that based on reviewing Garcia and Taguchi as a whole, neither Garcia nor Taguchi teach or suggest "creating a single data packet, including user data... and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid."

Further, Appellants respectfully submit that "[i]t is improper to combine references where the references teach away from their combination" (emphasis added; MPEP 2145(X)(D)(2); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)). Appellants respectfully note that "[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed

invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)). Further, Appellants respectfully submit that, “[w]ith regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not” (emphasis added) (MPEP 2142).

In particular, “if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious” (emphasis added) (MPEP 2143.01(VI); *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Further, “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed amendment” (emphasis added) (MPEP 2143.01(V); *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

More specifically, Appellants respectfully submit that based on reviewing Taguchi as a whole Taguchi teaches away from “creating a single data packet, including user data... and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid.” Further, Appellants respectfully submit that based on reviewing Garcia and Taguchi as a whole that Garcia and Taguchi teach away from each other. Therefore, Appellants are not attacking Garcia and Taguchi individually.

#### Examiner’s Answer page 18 lines 3-6

The Examiner’s Answer asserts on page 18 lines 3-6 that Garcia’s CRC is “key data.” Appellants respectfully disagree. Referring to Col. 5 lines 28-47, Col. 1 line 62 to Col. 2 line 9, Col. 2 lines 32-39, Col. 5 lines 1-8 and Col. 22 lines 54-65, Garcia’s CRC is cyclic-redundancy-check (CRC) that is used for detecting that “a possible error has

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occurred during transmission of the data” (Col. 22 lines 54-65). A transmitted packet with an error is discarded (Col. 22 lines 61-67). Therefore, Taguchi’s CRC is not key data.

Examiner’s Answer page 19 lines 4-7

The Office Action states at page 19 lines 4-7 “The Taguchi reference is relied on only to teach the limitation that said key data being generated based upon a destination address of said write operation.”

Appellants respectfully disagree. Appellants respectfully submit that when asserted art teaches away from a recited embodiment there is no motivation to combine the asserted art with other asserted art. Appellants respectfully submit that Taguchi teaches away from “creating a single data packet, including user data... and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid.” For example, Appellants understand Taguchi to teach loading the encrypted data into storage. After encrypted data is loaded into storage and when a request for the encrypted data is made by the control means to process the encrypted data, a decryption key for decrypting the encrypted loaded data is ordered and generated by the decryption key generation means. The data is decrypted and processed. Then a new encryption key for re-encrypting the processed data is passed to the encryption means (Col. 7 line 59-Col. 8 line 6 and Col. 8 lines 46-50). Therefore, Taguchi teaches away from “creating a single data packet, including user data... and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid.” Since Taguchi teaches away from “creating a single data packet, including user data... and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid” there is no motivation to combine Taguchi with Garcia.

Garcia and Taguchi teach away from each other

Further, Appellants respectfully submit that there is no motivation to combine Garcia and Taguchi because Garcia and Taguchi teach away from each other. For example, Garcia's requires his CRC to be generated and checked at hardware, such as the CPU and routers (Col. 2 lines 32-33, Col. 5 lines 5-7, Col. 5 lines 31-42). In contrast, Taguchi requires using software protecting functions to ensure high levels of encryption security (Col. 3 lines 56-62) so that "a third party" is "in a position to ...freely develop software which should be protected by the security function of the data processing apparatus in question" (Col. 3 lines 50-55). Modifying Garcia to use software instead of hardware would render Garcia inoperable for generating and checking Garcia's CRCs in order to detect and isolate errors that occur during the transmission of data. Modifying Taguchi to use hardware instead of software would render Taguchi inoperable for Taguchi's intended purpose of enabling third parties to freely develop software which should be protected by the security function of the data processing apparatus in question. Since Garcia and Taguchi teach away from each other, there is no motivation to combine Garcia and Taguchi.

Examiner's Answer page 19 lines 5-9

The Examiner's Answer states on page 19 lines 5-9, "It is noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references."

Appellants respectful submit that Appellants are not attacking Garcia and Taguchi individually. Appellants respectfully submit that based on reviewing Garcia and Taguchi as a whole, neither Garcia nor Taguchi teach or suggest "creating a single data packet, including user data... and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid." Second, Appellants respectfully submit that based on reviewing Taguchi as a whole Taguchi teaches away from "creating a single data packet, including user data...

and key data that is used to establish authorization to store said user data...transmitting said single data packet to the target storage device...writing said user data into said target storage device only when said key data is valid.” Third, Appellants respectfully submit that based on reviewing Garcia and Taguchi as a whole that Garcia and Taguchi teach away from each other. Therefore, Appellants are not attacking Garcia and Taguchi individually.

Further, for reasons discussed herein and in the Appeal Brief, Appellants respectfully submit that the Final Office Action dated February 19, 2009 and the Examiner’s Answer dated December 2<sup>nd</sup>, 2009 that by ignoring those portions of Taguchi and Garcia, which lead away, the Final Office Action and the Examiner’s Answer did not consider Taguchi and Garcia in their entirety, i.e., as a whole (MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)).

### CONCLUSION

In view of the above remarks, Appellants continue to assert that the combination of Garcia and Taguchi do not teach, describe, or suggest the claimed embodiments, for reasons presented above and for reasons previously presented in the Appeal Brief. Further, in view of the above remarks, Appellants continue to assert that the combination of Garcia, Taguchi and Adler do not teach, describe, or suggest the claimed embodiments, for reasons presented above and for reasons previously presented in the Appeal Brief.

Respectfully submitted,

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Dated: 01/27/2010

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